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| APPLICATION NO.  | FILING DATE                         | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.   | CONFIRMATION NO. |  |
|--|-------------------------------------|----------------------|-----------------------|------------------|--|
| 10/778,002   | 02/11/2004                          | Birgit Oppmann       | DX0935KB              |                  |  |
| 28008<br>DNAX RESEA  | 7590 09/12/2007<br>LX RESEARCH INC. |                      | EXAMINER              |                  |  |
| LEGAL DEPARTMENT 901 CALIFORNIA AVENUE PALO ALTO, CA 94304 |                                     |                      | HAYES, ROBERT CLINTON |                  |  |
|  |                                     |                      | ART UNIT              | PAPER NUMBER     |  |
|  |                                     |                      | 1649                  |                  |  |
|  |                                     |                      | MAIL DATE             | DELIVERY MODE    |  |
|  |                                     |                      | 09/12/2007            | PAPER            |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|  | Anningtion No.  | Applicant/a)  |  |  |  |  |
|--|---|---|--|--|--|--|
|  | Application No.   | Applicant(s)  |  |  |  |  |
|  | 10/778,002  | OPPMANN ET AL.  |  |  |  |  |
| Office Action Summary  | Examiner  | Art Unit  |  |  |  |  |
|  | Robert C. Hayes, Ph.D.  | 1649  |  |  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply   | ears on the cover sheet with the d  | correspondence address  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DATE of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  If NO period for reply is specified above, the maximum statutory period was realiure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION  B6(a). In no event, however, may a reply be tirgonial apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE | N.<br>nely filed<br>n the mailing date of this communication.<br>ED (35 U.S.C.§ 133). |  |  |  |  |
| Status   |   |   |  |  |  |  |
| 1) Responsive to communication(s) filed on 02 Ju   | <u>ıly 2007</u> .   |   |  |  |  |  |
| 2a)⊠ This action is <b>FINAL</b> . 2b)☐ This   | This action is <b>FINAL</b> . 2b) This action is non-final.   |   |  |  |  |  |
| 3) Since this application is in condition for allowar  | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is   |   |  |  |  |  |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  |   |   |  |  |  |  |
| Disposition of Claims  |   |   |  |  |  |  |
| 4)⊠ Claim(s) <u>41-45 and 48-62</u> is/are pending in the application.   |   |   |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.   |   |   |  |  |  |  |
| 5)⊠ Claim(s) <u>41-45 and 48-56</u> is/are allowed.  |   |   |  |  |  |  |
| 6)⊠ Claim(s) <u>57-62</u> is/are rejected.   | 6) Claim(s) <u>57-62</u> is/are rejected.   |   |  |  |  |  |
| 7) Claim(s) is/are objected to.  | 7) Claim(s) is/are objected to.   |   |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or  | r election requirement.   |   |  |  |  |  |
| Application Papers   |   |   |  |  |  |  |
| 9) The specification is objected to by the Examine   | r.  |   |  |  |  |  |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.   |   |   |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |   |   |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |   |   |  |  |  |  |
| 11) The oath or declaration is objected to by the Ex   | aminer. Note the attached Office  | e Action or form PTO-152.   |  |  |  |  |
| Priority under 35 U.S.C. § 119   |   |   |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:   | priority under 35 U.S.C. § 119(a  | )-(d) or (f).   |  |  |  |  |
| 1. Certified copies of the priority documents have been received.  |   |   |  |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No   |   |   |  |  |  |  |
| <ol><li>Copies of the certified copies of the prior</li></ol>  | ity documents have been receive   | ed in this National Stage   |  |  |  |  |
| application from the International Bureau  | , , ,   |   |  |  |  |  |
| * See the attached detailed Office action for a list   | of the certified copies not receive   | ed.   |  |  |  |  |
|  |   |   |  |  |  |  |
| Attachment(s)  |   |   |  |  |  |  |
| 1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)  |   |   |  |  |  |  |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08)   | Paper No(s)/Mail Di<br>5) Notice of Informal F  |   |  |  |  |  |
| Paper No(s)/Mail Date  | 6)  Other:  |   |  |  |  |  |

Application/Control Number: 10/778,002 Page 2

Art Unit: 1649

## **DETAILED ACTION**

## Response to Amendment

1. The amendment filed 7/2/07 has been entered.

- 2. The rejection of claims 46-48 under 35 U.S.C. 112, first paragraph, for new matter is withdrawn due to the cancellation or amendment of the claims.
- 3. The rejection of claims 31-40 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement is withdrawn due to the cancellation of the claims.
- 4. Applicant's arguments filed 7/2/07 has been fully considered but they are not deemed to be persuasive.
- 5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 6. Claims 41-45 & 48-56 are allowed.
- 7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 1649

Claims 57-62 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while enabling for compositions comprising the human IL-B60/ human CLF-1 polypeptide complex consisting SEQ ID NOs: 2 & 12, respectively, does not reasonably provide enablement for any random fragments of putative cytokine complexes with little recited structural and functional characteristics. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims, for similar reasons made of record for cancelled claims 31-40 in Paper No: 20070327, and as follows.

As previously made of record, page 64 of the specification merely invites others to "determine the critical residues in IL-B60 - IL-B60 receptor interactions". And that "[h]elices A and D [of IL-B60 of SEQ ID NO: 2] are most important in [this] receptor interaction, with the D helix the more important region [which is not the same as the IL-B60-CLF-1 complex binding to a receptor complex comprising CNTF-R, gp130 and LIF-R, as claimed, and versus only the "helix A, helix B, helix C, or helix D" of SEQ ID NO: 2 being claimed to form each component of the claimed soluble cytokine complex]. In other words, the specification fails to provide any disclosure on what critical amino acids would structurally constitute a functional fragment of a soluble cytokine complex that binds to a receptor complex comprising CNTF-R, gp130 and LIF-R, as claimed. Additionally, it is unknown and not disclosed what constitutes a functional "fragment of... a mature form of SEQ ID NO: 12" (i.e., a functional fragment of the CLF-1 component of the claimed soluble cytokine complex), thereby, preventing one skilled in the art from knowing how to make and use such, because the specification provides no guidance on what critical amino acid residues structurally constitute a functional fragment of any CLF-1

Art Unit: 1649

polypeptide. Therefore, any such broadly claimed polypeptides without sufficient definable structural and functional characteristics would be expected by the skilled artisan to encode inactive proteins; consistent with the teachings of Rudinger previously made of record without requiring undue experimentation to determine otherwise.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Robert Hayes whose telephone number is (571) 272-0885. The examiner can normally be reached on Monday through Thursday from 9:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan, can be reached on (571) 272-0841. The fax phone number for this Group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert C. Hayes, Ph.D. September 10, 2007

ROBERT C. HAYES, PH.D. PRIMARY EXAMINER